MEGASAT

HD 601

user manual

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Safety instructions

Please read the manual thoroughly before operating the equipment. In case of incorrect or improper handling, the warranty becomes void.

Power supply: Before start please check the correct operation voltage of the power point. The operating voltage of this device is AC 100 ~ 240 V, 50/60 Hz.

Overload: Do not overload a wall outlet, extension cord or adapter, neither use damaged power cord or touch it with wet hand as this may result in electric shock.

Liquid: The device shall not be exposed to dripping or splashing water, and that no objects filled with liquids, such as base, shall be placed on the apparatus.

Ventilation: Keep the slots on top of the receiver uncover to allow sufficient airflow to the unit. Do not put the receiver on soft furnishings or carpets. Do not expose the receiver to direct light or do not place it near a heater or in humid conditions. Do not stack other electronic equipments on top of the receiver.

Risk of ssuffocation: Do not let children play with films or other packaging components, there is a risk of suffocation.

Cleaning: Plug out the receiver from the wall outlet before cleaning. Clean the receiver by a soft cloth or mild solution of washing-up liquid (no solvents).

Connection: Disconnect the receiver from the mains when you connect it to satellite LNB or disconnect it from LNB. Failure would possibly cause damage to the LNB.

Location: Put the receiver indoor in order to avoid lightening, raining or sunlight.

Uncover: Do not remove the cover, to reduce the risk of electric shock. Contact qualified and licensed service personnel to repair the receiver, or contact your dealer.

1. Referenz

1.1 General Features

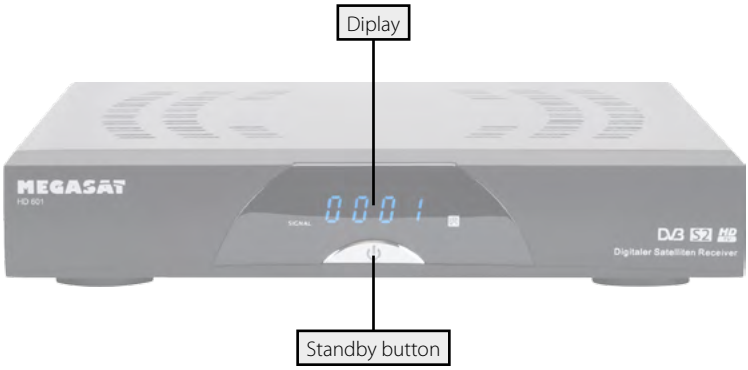
- DVB-S/DVB-S2 Satellite Compliant (MPEG-II / MPEG-IV / H.264)
- DiSEqC 1.0, 1.1, (USALS) compatible
- 4-digit display
- Support SCPC & MCPC receivable from C / Ku-band satellite LNB
- Universal, Single, Single S & C band wideband LNBs
- Sensitive Tuner
- PAL / NTSC conversion
- Variable aspect ratio (4:3, 16:9) with Pan Vector or Letter Box
- Output resolution: 576p & 576i, 720p, 1080i & 1080p
- To improve HDMI with Upscalefunktion to picture quality
- 8 favorite lists
- Parental Control function
- 5 types of sorting function for channels
- Screen display with full color resolution
- Teletext and subtitle support (OSD)
- 7 days EPG (Electronic Program Guide) for On-Screen Program Information
- Multilingual menu
- Multichannel order
- USB 2.0 (Mediaplayer)

1.2 Delivery

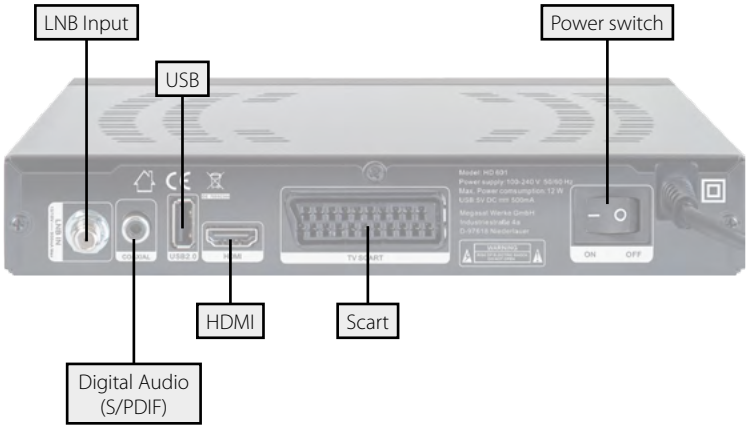
- Megasat HD 601
- Remote control
- Batteries
- User manual

2. Names and key assignment

2.1 Front view



2.2 Rear view



2. Names and key assignment

2.3 Remote control

Zone 1

POWER Turn on/off the unit (Standby)
MUTE Muting the sound
TV/R Switches between TV and radio reception
DISPLAY Switching between different display formats
MODE Change the TV resolution
TIME Timer Einstellungen
F1 Function key (optional)
Numeric keys (0~9) Program Change / Enter numbers
FAV Displays the Favorites list (if favorites available)
RECALL Switches between the last and current program
MENU To access the main menu
EXIT Exits the current menu step by step
INFO Displays information of the current program
EPG Displays the EPG (Electronic Program Guide)

Zone 2

▲ ▼ Switches TV/radio programs (up/down)
◀ ▶ Adjust the volume
VOL +/- Adjust the volume
CH +/- Switches TV/radio programs (up/down)
OK Confirm the current selection / Open the program list
TXT Displays the teletext of the respective program
SUB Displaying subtitles (if available)
OPT Option button
PAGE ▲/▼ Scroll page by page
USB Display menus of the USB if a USB device is connected
FIND Quick search of individual programs
SLEEP Activate Off-Timer (15, 30, 45, 60, 90, 120 min.)

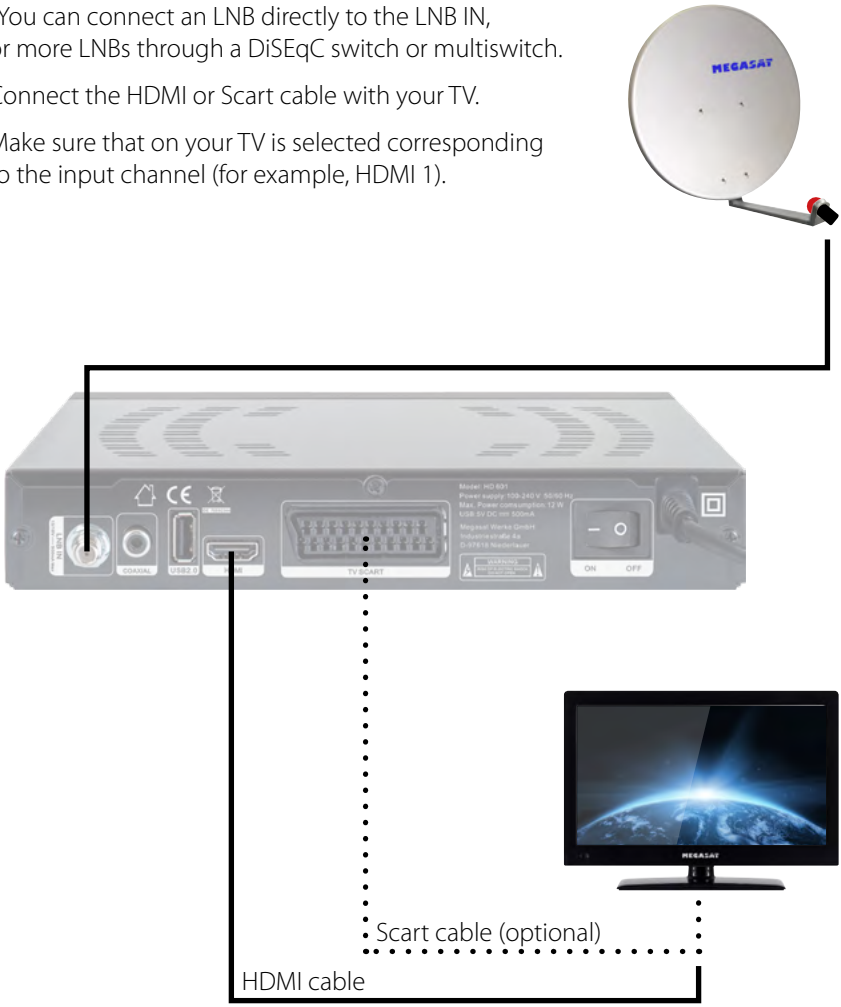
Zone 3

AUDIO Selection or change the audio track
PAUSE Pauses the current TV picture (freeze picture)
ZOOM Zoom function of the current program
SAT Displays the stored satellite list
◀◀ / ▶▶ Fast forward / reverse
▶ Start
■ Stop
|◀◀ / ▶▶| Chapter forward / backward
|| Pause
● Start recording (optional)

3. Connecting the set-top box

3.1 Connecting the set-top box

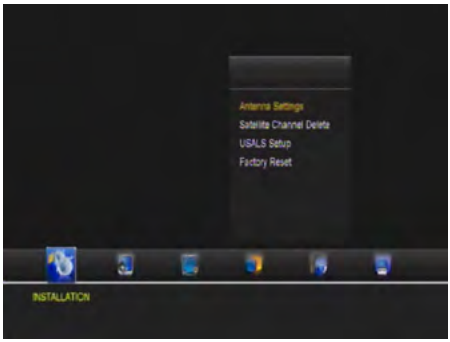
1. Connect the coaxial cable to the LNB.
   (You can connect an LNB directly to the LNB IN,
   or more LNBs through a DiSEqC switch or multiswitch.
2. Connect the HDMI or Scart cable with your TV.
3. Make sure that on your TV is selected corresponding
   to the input channel (for example, HDMI 1).



4. Main Menu

After connecting the receiver to other required equipment, turn on the set-top box

Press the **MENU** button to enter the menu.



The main menu consists of:

- Installation
- Channel edit
- Settings
- Time settings
- Advanced
- Information

Use the ◀ ▶ button to select your subject and press OK to confirm your selection and enter that sub menu, press EXIT button you can return to the previous menu.

Note:
The default password for the menu access is: 0000

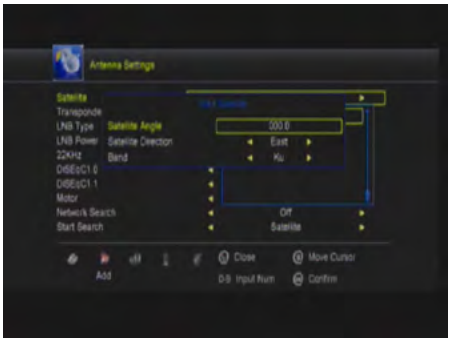
4.1 Installation

1. Antenna settings
Press OK to Enter Dish setup, here you can make Satellite Scan, Satellite Edit, TP Search, TP Edit and other related Functions.

Satellite
Press the OK button to enter the list of preset satellites. Use the ▲▼ buttons to select a satellite, with the ◀ ▶ buttons you can at select the symbol of the bottom of the screen for editing and to the respective satellite edit.

4. Main Menu

Add satellite:
Add satellite by using the Red key. Here you can input new Satellite angle, Satellite Direction (east, west), Band (ku,c). OK to confirm the setting and this new satellite will be added to the end of the Satellite list.



Move satellite:
Select the satellite and press the OK button. You can now enter to move the position of the satellite in a desired position.

Delete satellite:
You can delete the user's satellite. Select the satellite that you want to delete from the satellite list. You will be asked to confirm whether delete the satellite or not. If you press ok key, all the channels in the selected satellite and transponder will be deleted, and the selected satellite will disappear.

Rename satellite:
Select the satellite then press green button. You can change the satellite's name, angle, direction and band. Input the characters which you want to edit using the browser.

4. Main Menu

Transponder

Press the OK button to enter the list of preset transponders. Use the ▲▼ buttons to select a transponder, with the ◀ ▶ buttons you can at select the symbol of the bottom of the screen for editing and to the respective transponder. The processing is performed in the same manner as the processing of the satellite.

LNB Typ

Here you need to check the LNB typ according to your antenna, set the correct frequency or define yourself. The default setting (Universal) is true in most cases.

Unicable System:
Under the menu item LNB type, you can make the settings for single-cable (unicable). The set-top box is programmable for different unicable systems. Depending on the system can be connected to a system of up to 8 set-to boxes.

Megasat, Kathrein, Technisat and identical devices use the following frequencies:
IF Channel: 1=1284; 2=1400; 3=1516; 4=1632; 5=1748; 6=1864; 7=1980; 8=2096

Inverto and identical systems use the following frequencies:
IF Channel: 1=1076; 2=1178; 3=1280; 4=1382; 5=1484; 6=1586; 7=1688; 8=1790

Under IF Channel You can select up to 8 different frequencies, while each IF channel is automatically assigned a frequency. Note that each frequency may be present only once in your system. The frequencies depend on your cable system and must not be changed arbitrarily. For systems that does not match the pre-programmed frequencies which can under these Adjust the main point frequency.

Note:
Basically, one uses the lowest frequency for the longest cable path to the set-top box.

LNB Power

Here you need to check the LNB power according to your antenna, set the correct frequency or define yourself. The default setting (13V/18V) is true in most cases.

4. Main Menu

22KHz

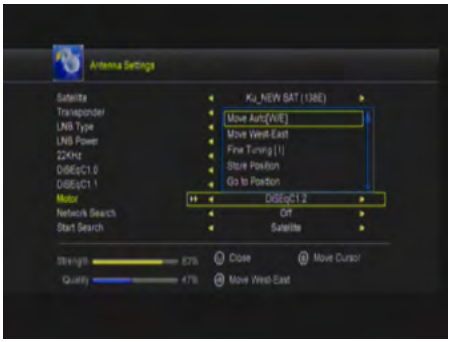
In case you are using two antennas connected to a 22KHz tone switch box. You can supply either 22KHz by setting "OFF" to select antenna.

DiSEqC 1.0 / DiSEqC 1.1

If you connect antenna to DiSEqC Switch, you need to specify the DiSEqC input to which your selected satellite have been configured.

Motor

Use the ◀ ▶ buttons to select the control of your motor. If you enable this option and then press OK, you can make further adjustments to the position of the mirror adjust:



Move Auto [W/E]

Press RIGHT/LEFT button, the dish will be motorized to East/West continuously, it will stop until it find the best signal.

Move Continue

Press RIGHT/LEFT button, the dish will be motorized to East/West continuously until you press LEFT/RIGHT again.

Move Step

Press RIGHT/LEFT button, the dish will be motorized to East/West by step.

Store Position

Save the current position you searched for the selected satellite.

Go to Position

Press OK button to move the dish to the stored position.

Go to Reference

Press OK button to move the dish to 0 position.

Set West Limit

Enable West limit.

Set East Limit

Enable East limit.

Disable Limit

Disable West limit and East limit.

4. Main Menu

Channel search
In this menu item you can select different search options:

- All programs
- Free programs
- HD programs
- SD programs
- TV programs
- Radio programs
- FTA TV programs
- FTA Radio Programs

Start channel search
After you have set all the relevant positions in the antenna menu, you can now search for programs. You can use various search functions:

Transponder:
Just look on the selected Transponder.
Satellit:
Searches all stored transponders of the selected satellite.
Multi-Sat:
Scans all selected satellites.
Blind Scan:
Finds the satellites from all transponders, even those that are not stored in the list. This process will take some time to complete.
Multi-Transponer:
Searches for all satellites on the selected transponder.

2. Delete satellite channels
In this menu, you can delete unwanted channels lists matching the selection.

4. Main Menu

3. USALS setup

In this menu you can adjust to your USALS to operate your antenna with a motor.

4. Factory setting

Here you can delete all settings and channels and set back to factory condition. If the option is selected and confirmed with OK, you are prompted to confirm this. If you select „YES", all data and settings are reset to the factory preset values. All the settings you have made will go irrevocably lost.

4. Main Menu

4.2 Channel edit

Here you can move programs, delete, lock, rename, replace and create favorites lists.

1. TV programms
Select the menu item TV programs and confirm with OK. At the bottom of the screen there are 4 different symbols available. Use the ◀ ▶ buttons to select the options.

Move
Press OK to select a program you want to move. To move the program to the position you want, simply press the ▲▼ buttons until you have reached the desired position, or enter the numerical number of the desired court and then confirm with the OK button. Multiple programs to move appears simultaneously, select the program and press the blue button on the remote control. Repeat this process until all desired stations are instantly highlighted. Now select the desired program number and confirm with the OK button.

Delete
Move the cursor to the desired program, which is to be deleted and press the OK button. The selected program is marked with a cross. Repeat the process until all programs are marked to be deleted and then press the Exit button. Confirm the deletion of the programs by selecting „Yes". If you select „No" is deselected and no change is made.

Lock
You can lock a channel. After press OK button, you are prompted to enter a password.

Rename
Select the desired program that you want to rename. Press OK to open the editing window. Use the cursor and color keys to select the desired characters. Press OK to confirm your choice.

Exchange
You can replace a program that you select from the Channel List, with another program. Press the OK button, then you will be asked which program you want to the current interchange. Use the number keys to select the desired program number and confirm with OK.

2. Radio programs
Editing the radio programs are in accordance with the instructions of TV programs.

3. Favorits
You can sort programs into different groups, such as news, movies, music, or sports. Select at the bottom of the desired favorite group with the ◀ ▶ buttons. Then select the desired channel using the ▲▼ buttons and press OK. An icon appears next to the selected program. Repeat the process until all desired channels are assigned the appropriate favorite group.

Note:
To rename a favorite group, press the RED button on the remote control.

4. Favorits Radio
The create the radio favorites list is according to the instructions favorites list.

5. Sort channels
In this menu item you can choose different sorting functions:

- Alphabetically
- Transponder
- FTA / encrypted
- Standard
- Favorites
- Provider
- Service ID

6. User channel list
With this option, you can save and load your self-created channel list to the internal memory of the device.

Save channel list:
Select this option by pressing OK. Confirm with „YES" to save the current channel list at the set-top box. Select „No" to cancel the process.

Load channel list:
If you make a factory setting, or the channel list accidentally deleted, you can load the previously stored channel list from memory here.

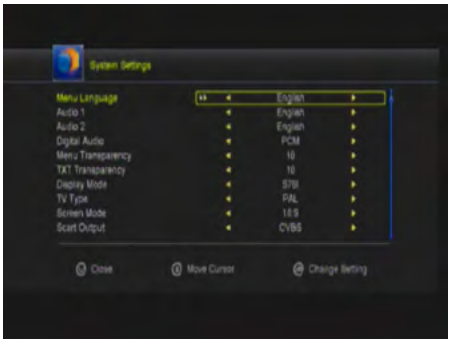
4. Main Menu

4.3 Settings

Here you can change basic settings of the set-top box.

1. System settings

Use the ▲▼ buttons to navigate the menu. With the ◀ ▶ buttons you change accordingly each point according to your needs. It can be set as follows:



- Menu Language
- Audio 1
- Audio 2
- Subtitle language
- Subtitle function
- EPG language
- Teletext language
- Digital Audio
- Scart Ausgang
- Automatic program change
- Automatic exit the program list
- Start Last Viewed program
- Low Power Standby
- Display lighting

4. Main Menu

2. OSD settings

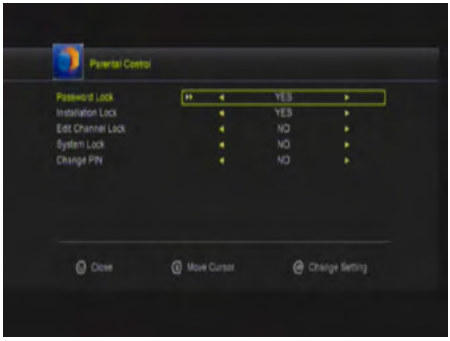
Use the ▲▼ buttons to navigate the menu. With the ◀ ▶ buttons you change accordingly each point according to your needs. It can be set as follows:

- Menu transparency
- Teletext transparency
- Screen resolution
- TV Typ
- TV format
- OSD display time

Parental lock

Here you can assign a password to different menu items and programs to prevent children from changing the settings, or not seeing desired programs.

The first menu item „Password Lock" activates or deactivates the complete child safety. When you activated the lock, you can select individual menus or programs with „yes" or „no" to enable or disable.



Picture settings

Use the ▲▼ buttons to navigate the menu. With the ◀ ▶ buttons you change accordingly each point according to your needs. It can be set as follows:

- Brightness
- Contrast
- Saturation
- Standard (resets the settings to the default values.)

4. Main Menu

4.4 Time settings

In this menu, you can make settings by time and date, set an event or sleep timer and set the automatic shutdown of the set-top box.

1. Time settings

The default time is set to automatic, but it can also be entered manually. Select the time zone of your country and you will get the current time based on TDT (Time and Data Table) in the data stream of the current program.

2. Event-Timer

Here you can set the timer to access the program you have selected to determine a time. The set-top box switches automatically to the selected time on this channel. Use the color buttons to enter any settings:

RED: add timer
GREEN: edit timer
YELLOW: delete timer

4. Main Menu

3. Sleep Timer
Set the desired time after the set-top box should turn off. You can choose between 15, 30, 45, 60, 90 or 120 minutes.

4. Clock in standby
Here you can select whether the time should be displayed in the standby mode on the display. You can choose between ON (active) or OFF (inactive).

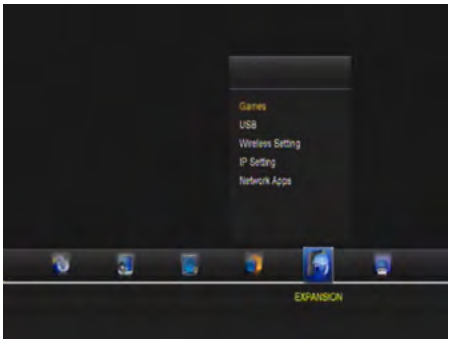
5. Automatic shut-off
Here you can set the time after the set-top box should turn off if no operation was performed on the set-top box. You can choose between 1, 2 or 3 hours.

Note:
The factory setting of the set-top box, the automatic shutdown is enabled and the set-top box switches off after 3 hours automatically if no operation was performed.

4. Main Menu

4.5 Advanced

In this menu, additional functions of the set-top box are offered.



1. Games
Here are some classic games for your pleasure.

2. USB
USB menu is only active when a suitable USB device is connected.

You can limit the data that is displayed by selecting with the ◀ ▶ buttons at the top of one of the symbols:

- All
- Movies
- Music
- Pictures
- Software

To play a file, highlight it with the arrow keys and then press the OK button.

Note:
At a USB device following formats are supported:
FAT & FAT32, NTFS

3. Remove USB safely
Before you remove the external storage media (eg hard disk or USB stick), confirm this option with OK in order to avoid any damage to the storage medium. Then a message appears indicating that the medium was removed successfully.

4. Main Menu

For more options on the color keys on the remote control. At the bottom of the screen there are four choices available. Then follow the information in the relevant information window.

Tools (RED)
Press the RED button to enter the tool list. Here you may rename, delete, move, copy, create a new folder, sort, and format your USB device.

Playback mode (GREEN)
Press the GREEN button to adjust settings such as repeat and slideshow interval of your photos.

Upload (YELLOW)
Press the YELLOW button to access the upload mode. You can then upload the data on your USB or to your FTP server.

4.6 Receiver Informations

See information about the software and hardware version of the receiver will be displayed:

- Model
- Hardware version
- Software version
- Software date
- Serial number
- Used channel list
- Used transponder
- Used satellite

5. Additional information

5.1 Troubleshooting

You might meet abnormal working of this STB with various reasons. Check the following which may help you.

Problem	Possible causes	What to do
LED on the front panel fail to light up/is not lit.	Main supply cable is not connected.	Check if the main supply cable is plugged into the power socket.
No picture or sound.	Satellite dish is not aiming to satellite accurately. No signal or weak signal. The LNB is faulty. The cable is faulty.	Adjust the dish. Check the signal strength indicator in one of the channels search submenus. Check the cable connections, LNB and other equipment connected to LNB & receiver, or adjust dish. Replace the LNB. Replace the cable.
Bad picture/blocking error	Satellite dish is not aiming to the satellite accurately. Signal too strong. Satellite dish is too small. LNB noise factor too high. The LNB is faulty.	Adjust the dish. Connect an attenuator to LNB input. Change to a larger dish. Change LNB with lower noise factor. Replace the LNB.
No startup menu on screen after turning on STB for the first time.	The system is connected by SCART cable and the TV is not in AV/ EXT mode.	Switch the TV to the appropriate AV input.
The remote control is not working.	Battery exhausted. Remote control is not aimed correctly STB is in standby mode.	Change the batteries (both). Aim the remote control at the STB. Check that nothing blocks the front panel. Check if LED indicator on the front panel is showing the time, press the power button to switch off standby mode.
You have forgotten your password.		Contact the dealer or Service Provider. They will help you set it up again.
Poor picture quality or Less channels in scanning.	Low LNB power or signal loss in cable.	Change the LNB power to 14V/19V in Antenna setup menu.

5. Additional information

5.2 Specifications

Tuner & Demodulator	
Frequency Range	950 MHz to 2150 MHz
Input Connector	F-Type, IEC 169-24, female
Signal Level	-25 bis -65 dBm
RF Impedance	75 Ω, unbalanced
IF Band width	55 MHz / 8 Hz (per 5 Msps)
LNB Power & Polarization	Vertical : +13 V, 14 V +/-5 % Horizontal : +18 V, 19 V +/-5 %: max. 500 mA Overload Protection
LNB Tone Switch	22 KHz +/- 2 KHz, 0.6 V +/- 0.2 V
DiSEqC Control	Version 1.0/1.2 compatibel, Tone Burst A/B
Demodulation	QPSK / 8PSK
Symbol Rate	1~45 Ms/s / SCPC, MCPC
FEC Decode	1/2, 2/3, 3/4, 5/6 and 7/8 with constraint Length K=7
MPEG	
Transport Stream	MPEG-4/H.264, MPEG-2 ISO/IEC 13818
Profile Level	MPEG-4/AVC, MPEG-2 MP@ML, MP@HL
Input Rate	max. 15 Mbit/s
Aspect Ratio	4:3, 16:9
Video Resolution	720 x 576, 720 x 480, 1280 x 720, 1920 x 1080
Audio Decoding	MPEG / MusiCam Layer I & II
Audio Mode	Single channel / Dual channel / Joint stereo / Stereo
Sampling	32, 44.1 and 48 KHz
A/V and Data In/Out Connector	
TV SCART	RGB, CVBS, L, R out
LNB IF Input	F type, IEC 169-24 female
Power supply	
Input Voltage	100 - 240 V AC, 50/60 Hz,
Power in use	max. 12 W
Power in standby	< 0,5 W
Protection	Separate internal fuse. Input shall have lightening Protection
Physical Specifications	
Dimensions	220 x 140 x 40 (B/D/H)
Weight (net)	ca. 525 g
Operating Temp	0° C - bis +40° C
Storage Temp	-40° C - bis +65° C

5. Additional information

5.3 Informations

Note:
Weight and dimensions are not absolutely exact values. Technical details can be changed at any time (according to manufacturer) without prior notice.

Declaration of Conformity

This complies with the following directives / standards is confirmed:

Electromagnetic Compatibility Directive 2004/108/EG
EN 55013: 2001 + A1: 2003 + A2: 2006
EN 55020: 2007
EN 61000-3-2:2006 + A1:2009 + A2:2009
EN 61000-3-3:2008

Low Voltage Directive 2006/95/EG
EN 60065: 2002 + A1: 2006 + A11: 2008

Notes

WEEE Reg.-Nr. DE 70592344

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